



RS ZERO BEMU

The Stadler Regio-Shuttle RS1 has been one of the most popular vehicles in German regional rail transport for 28 years. Around 500 vehicles of this successful model are currently in use.

The Regio-Shuttle has helped to create economical, attractive options on local branch lines with low traffic density.

The RS ZERO is based on the Regio-Shuttle RS1, albeit with a fully decarbonised drive.

Thanks to this innovation, Stadler can offer the best of both worlds: it retains the advantages of the tried-and-tested RS1, but integrates the most modern, environmentally friendly drive technologies.

The RS ZERO is a suitable vehicle for non-electrified or partially electrified lines. Its battery drive enables it to travel on non-electrified sections of the line, thus bridging the gap for CO₂-emission-free operation of local branch lines.

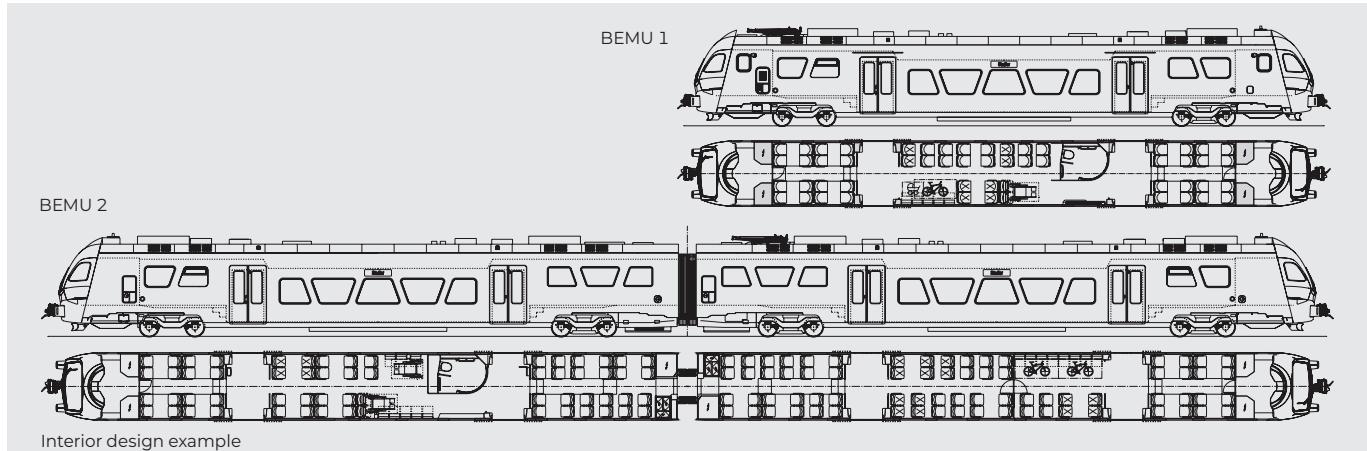
Unlike the RS1, the RS ZERO is available as a one-car or two-car vehicle. The one-car unit with a toilet has space for 67 seats or around 75 seats without a toilet. The maximum number of seats in the two-car unit with a toilet is 150 or 165 without a toilet. The RS ZERO has an impressively large, comfortable low-floor area, which makes it the leading vehicle in this category.

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Technical features

Technology

- Operation with or without overhead contact lines thanks to traction battery
- Charging of the traction batteries by overhead line and recovery of braking energy
- Lightweight construction – axle load under 18 t
- One-car and two-car versions

Comfort

- Large low-floor area suitable for bicycles, pushchairs and wheelchairs
- 2 or 4 passenger doors per side for optimum passenger boarding and alighting
- Variable interior than can be adapted to seasonal requirements
- Air-conditioned passenger compartment
- Sliding steps at all doors
- Optionally with barrier-free toilet

Personnel

- Driver's cab with large field of vision thanks to large windscreen and side windows
- Air-conditioned and ergonomic driver's cab

Reliability / Availability / Maintainability / Safety

- High redundancy
- Compliance with all standards and TSI
- EN 15227 C1 and EN 12663 P2
- Fulfils the current requirements regarding crashworthiness and car body strength for standard-gauge railways (EN 15227 and EN 12663)
- Low-wear electric drive

Vehicle data

Operated networks	Non-electrified local branch lines. EBO/UIC/EN 15273: G1
Track gauge	1,435 mm
Designation	RS ZERO BEMU 1 / BEMU 2
Supply voltage	15kV / 16,7 Hz
Operating voltages (optional)	25 kV / 50 Hz, 1,5 kV DC, 3 kV DC
Max. axle load	< 18 t
Axle arrangement	BEMU 1: (1A)(A1) BEMU 2: (1A)(A1)+(1A)(A1)
Seats incl. tip-up seats (with toilet)	BEMU 1: 67 BEMU 2: 150
Seats incl. tip-up seats (without toilet)	BEMU 1: 75 BEMU 2: 165
Floor height	Low-floor area 600 mm High-floor area 1,190 mm
Entrance width	1,300 mm
Height of entrance above FFL	600 mm
Height of entrance (overall door height)	2,120 mm
Axial thrust	1,500 kN
Length over coupling	BEMU 1: 27,400 mm BEMU 2: 53,140 mm
Vehicle width	2,820 mm
Vehicle height	4,275 mm
Motor bogie	1,900 mm
Driving wheel diameter, new	760 mm
Carrying wheel diameter, new	760 mm
Max. output at wheel	BEMU 1: 600 kW BEMU 2: 1,200 kW
Starting tractive effort	BEMU 1: 70 kN BEMU 2: 140 kN
Max. starting acceleration	0,95 m/s ²
Max. speed	120 km/h